

EFFICACY REVIEW

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FILE OR REG. NO. 72969-E

PETITION OR EXP. PERMIT NO.

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TYPE PRODUCT(S): (I,)D, H, F, N, R, S

DATA ACCESSION NO(S) . 455112-06;D278978;S605233;Case#071233;AC:165

PRODUCT MGR. NO. 03-Layne/DeLuise

PRODUCT NAME(S) SHP-2002

COMPANY NAME Star Horse Products, Incorporated

SUBMISSION PURPOSE Provide performance data in support of claims
for repellency of horn fly, face fly, stable fly
and house fly from horses for up to 2 weeks.

CHEMICAL & FORMULATION Permethrin: (3-phenoxyphenyl)methyl(+)cis/-
trans 3-(2,2-dichloroethenyl) 2,2-dimethylcyclopropanecarboxylate*
*Cis/trans isomer ratio;
45.00% Maximum 55%(+) cis, (2 - 9 cc applicators of ready-to-use
liquid)
Minimum 45%(+) trans

CONCLUSIONS & RECOMMENDATIONS The data presented in EPA Accession
(MRID) Number 455112-06, having been obtained from a standard field
test meeting the requirements of § 95-8(a)(1) to (5)(viii) on pp.
255-6 and (6) through (8) on pp. 257-8 and meeting the standard
of § 95-8(b)(2)(iii) on p. 261 of the Product Performance
Guidelines, and conducted according to the GLP requirements of 40
CFR 160 with noted exceptions, are adequate to demonstrate the
ability of the subject product to repel horn fly, *Haematobia*
irritans, stable fly, *Stomoxys calcitrans*, and house fly, *Musca*
domestica, for a period of up to 2 weeks following application by
means of a specially designed applicator to horses according to label
directions. The 12 ml dose of the subject product produced
acceptable horn fly con- trol through 28 days, with repellency
hovering slightly below or slightly above the standard of 90% at
every observation except 9 days and 14 days. It was noted that these
peaks occurred around or on the days prior to the second application

on day 14, and that following the second application, numbers of horn (to be continued) fly remained at an acceptable level to the 28th day when the test was terminated. By contrast, with the 9 ml dose of the subject product, no acceptable level of repellency was produced until after the second application, and was not maintained to even the second observation following final application, on day 19.

Even the 12 ml dose of the subject product produced only marginally acceptable repellency of stable fly, with control level being approached or exceeded on only 3 of 11 dates, with almost no repellency being noted on 4 separate dates. Again, the highest level was achieved following the second application. By contrast, the 9 ml dose produced no acceptable level of repellency until the observation immediately following the second application, which was not maintained to even the second observation on day 19. Again, almost no repellency was noted on 4 separate dates.

Both the 9 ml and 12 ml doses of the subject product produced an acceptable level of repellency to house fly on the face and head early in the test, with the 12 ml dose approaching control level before the second application, and achieving the highest degree of control noted in the test immediately following second application. Even the 9 ml dose continued a fairly high degree of repellency just before second application, which was maintained at every observation through day 19 except day 9, with control level being approached following second application.

In observations of house fly repellency on the body of horses, only the 12 ml dose of the subject product produced any level of repellency except at the initial observation when both doses had the best results noted throughout the test. The 9 ml dose reached a second peak of repellency following the second application, but this was not sustained to even the next observation on day 16. Also, virtually no repellency was observed on 5 of 11 days when counts were made. The 12 ml dose was only slightly better, with moderate repellency through day 3, a second peak following second application on day 14, and 4 of 11 days when virtually no repellency was noted.

In summary, the 9 ml dose, which is the only rate on the label for the subject product, will not give satisfactory repellency of horn fly, stable fly, or house fly (on the body of horses); the 12 ml dose will give control of horn fly throughout a two-week period or longer, as well as fairly high repellency of stable fly and house fly (on face and head of horses) and a higher repellency of house fly (on the body of horses) than the 9 ml dose. This higher dose will support the front panel claims "For Biting Fly Protection" and "Kills and Repels Horn Flies, Face Flies, Stable Flies and House Flies for Up to Two Weeks". We recommend the registrant revise application directions to use the higher dose in all cases except house fly repellency for the face and head of horses. The applicator should be redesigned to hold 12 ml each or the number of applicators increased to 3 containing 8 ml each.

RL Vern L. McFarland, IB